

**CLAIMS**

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows.

1. A method of providing a calculation scale framework for use in an electronic commerce environment comprising a computer network, the electronic commerce environment defining a calculation rule, and a set of commerce objects being defined by the electronic commerce environment, the method comprising:

providing a calculation scale comprising calculation ranges, each said calculation range being either cumulative or non-cumulative and having an associated range start number, an optional currency attribute, which if present specifies the currency of the range start numbers, and an optional unit of measure attribute, which if present specifies the unit of measure for the range start numbers;

providing a calculation scale look up interface to return a look up number, a base monetary value, a result multiplier and a set of mathematical weights corresponding to the set of commerce objects;

providing a range look up result interface to return a calculation result;

providing a multiplication product of the calculation result and the result multiplier;

providing a total result by adding the multiplication product to a previously determined sum of multiplication products, for cumulative calculation ranges or, replacing the previously determined multiplication product for non-cumulative calculation ranges;

and apportioning the total result to the set of commerce objects in proportion to the set of mathematical weights.

2. The method as claimed in claim 1, the method comprising:

passing the set of commerce objects, the calculation rule, and the calculation scale to the calculation scale look up interface.

3. The method as claimed in claim 2, comprising passing a currency, a calculation range look up result, an applicable part of a look up number, and an applicable part of a base monetary value.

4. The method of claim 3, wherein the applicable part of the look up number is returned by the calculation scale look up interface.

5. The method of claim 4, wherein the applicable part of the base monetary value is returned by the calculation scale look up interface.

6. The method of claim 5, wherein the calculation scale look up interface returns parameters comprising:

a look up number for comparison to a predetermined set of range start values;

the base monetary value;

the result multiplier;

the set of mathematical weights; and

an exception if a required conversion defined by the electronic commerce environment is not available.

7. The method of claim 6, wherein the range look up result interface returns an exception if a calculation result is not available in a currency specified by the electronic commerce environment.

8. The method of claim 7, wherein the total results are apportioned by one or more of a group of parameters having quantity, quantity spread by net price, weight, weight spread by net price, non discounted price, net price, unit price, taxable net price, and taxable unit price.

9. The method of claim 8, wherein the range look up result interface returns the calculation result calculated from one or more in a set of parameters having a fixed amount, a per unit amount, and a percentage.

10. A computer program product for use with a computer system in an electronic commerce environment comprising a computer network, the electronic commerce environment defining a calculation rule, and a set of commerce objects being defined by the electronic commerce environment, the computer program product comprising:

a recording medium,

means, recorded on the recording medium, for providing a calculation scale look up interface to return a result multiplier and a set of mathematical weights corresponding to the set of commerce objects;

means, recorded on the recording medium, for providing a range look up result interface to return a calculation result;

means, recorded on the recording medium, for providing a multiplication product of the calculation result and the result multiplier;

means, recorded on the recording medium, for providing a total result by adding the multiplication product to a previously determined sum of multiplication products, in a cumulative environment defined by the calculation rule, or, replacing the previously determined multiplication product in a non cumulative environment defined by the calculation rule;

and means, recorded on the recording medium, for apportioning the total result to the set of commerce objects in proportion to the set of mathematical weights.

11. The computer product of claim 10, wherein the recording medium is one of a group of magnetic recording media having a computer disk, a CDROM, and a hard drive.

12. The computer product of claim 11, wherein the recording medium comprises means for passing the set of commerce objects and a predetermined set of calculation range objects to the calculation scale look up interface.

13. The computer product of claim 12, wherein the recording medium comprises means for passing a set comprising a calculation range look up result, an applicable part of a look up number, and an applicable part of a base monetary value.

14. The computer product of claim 13, wherein the recording medium comprises means for returning the applicable part of the look up number from the calculation scale look up interface.

15. The computer product of claim 14, wherein the recording medium comprises means for returning the applicable part of the base monetary value from the calculation scale interface.

16. The computer product of claim 15, wherein the recording medium comprises means for returning from the calculation scale look up interface parameters comprising:

a look up number for comparison to a predetermined set of range start values;

the base monetary value;

the result multiplier;

the set of mathematical weights; and

an exception if a required conversion defined by the electronic commerce environment is not available.

17. The computer product of claim 16, wherein the recording medium comprises means for returning an exception from the range look up result interface if a calculation result is not available in a currency specified by the electronic commerce environment.

18. The computer product of claim 17, wherein the recording medium comprises means for returning, from the calculation scale look up interface, total results apportioned by one or more of a group of parameters having quantity, quantity spread by net price, weight, weight spread by net price, non discounted price, net price, unit price, taxable net price, and taxable unit price.

19. The computer product of claim 18, wherein the recording medium comprises means for returning, from the range look up result interface, the calculation result calculated from one or more in a set of parameters having a fixed amount, a per unit amount, and a percentage.

20. The computer program product of claim 10 wherein said computer readable code means comprises a computer readable signal and said medium comprises a computer readable signal-bearing medium.

21. The computer program product of claim 20 wherein said medium is a recordable data storage medium.

22. The product of claim 20 wherein said medium is a modulated carrier signal.
23. The product of claim 22 wherein said signal is a transmission over a network.
24. A computer program comprising computer program code means adapted to perform all the steps of claim 1 when said program is run on a computer system